CALFED Bay-Delta Program

Ecosystem Restoration Program Planning

Development of Implementation Objectives and Targets for Key Resources

Ecological Zone: Mainstem Rivers

Ecological Subzone: San Joaquin River (Mendota Pool to Merced River)

KEY RESOURCES AND STREAM HABITATS:

Resource: Fall-run chinook salmon

Stream habitat: Upstream migration.

Implementation Objective: Prevent adult salmon migration upstream from the confluence with the Merced River. No suitable spawning habitat is available in this reach of the San Joaquin River or in the westside drainage canals.

Target: Eliminate access of upstream migrating fall-run chinook salmon.

Action: Install temporary fish barrier during fall-run upstream migration period in the San Joaquin River immediately above the confluence with the Merced River.

Resource Guild: Native resident fish community

Stream habitat: All life stages

Implementation Objective: Maintain diversity of native fishes.

Target: No numeric target.

Resource: Splittail

Stream habitat: Spawning and rearing

Implementation Objective: Maintain habitat for splittail spawning and rearing.

Target: No numeric target.

Resource Guild: Macroinvertebrates

Stream habitat: Larval stages.

Implementation Objective: Maintain diverse community of macroinvertebrates.

Target: No numeric target.

KEY ECOSYSTEM FUNCTIONS/PROCESSES AND STRESSORS:

Function/Process: Downstream transport of contaminants

Stressor: Drainage water entering the river from westside canals and sloughs contains high salinity and contaminant levels, resulting in toxicity/reduced habitat availability for key species downstream to the Delta.

Implementation Objective: Reduce discharge of contaminants.

Target: No numeric target.

Action: Strictly enforce existing water quality standards; strengthen standards if needed.

Function/Process: Stream shading/nutrient input from riparian vegetation

Stressor: Riparian vegetation removal reduces stream shading and nutrient input to stream.

Implementation Objective: Protect and restore riparian vegetation.

Target: No numeric target.

Action: Restrict further removal of riparian vegetation.

Encourage implementation of improved land management and livestock grazing practices along stream/riparian zones.

Implement riparian restoration program.

Function/Process: Sediment Budget/Channel Morphology

Stressor: High rates of sediment input and impaired sediment transport due to altered streamflow result in accumulation of fine sediments.

Implementation Objective: Restore balanced sediment budget.

Target: Maintain sediment input in balance with transport from the system.

Action: Provide channel maintenance/flushing flows as needed.

Encourage implementation of improved land management and livestock grazing practices along stream/riparian zones to reduce streambank erosion and sediment input.

Implement management program for fine sediments.